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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LELE, TANMAY S

ART UNIT	PAPER NUMBER
2684	16

DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/517,186

Applicant(s)

TAKEMURA, HISAO

Examiner

Tanmay S Lele

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8,9,11 and 13-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 and 9 is/are allowed.
- 6) ☒ Claim(s) 11 and 13-17 is/are rejected.
- 7) ☒ Claim(s) 13-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Allowable Subject Matter***

1. The following is an examiner's statement of reasons for the indication of allowable subject matter:

Regarding claim 8, Examiner is in agreement with the remarks set forth in the Applicant's Remarks filed on 23 December 2003; paper number 15, pages 6 –10.

Claim 9 is allowed as being dependent on independent claim 8.

2. Claims 13 – 17 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Regarding claim 13, the present invention is of a reader/writer system comprising: a plurality of wireless information storage devices having substantially planar surfaces, substantially the same outer shapes and sizes, and which are stacked, wherein each of the devices includes: a coil antenna that transmits and/or receives a signal via wireless communication and has a two-dimensional center; a memory arranged in the space of the coil antenna to store information; a control unit that generates information by demodulating a signal received via the coil antenna, and generates a signal to be transmitted via the coil antenna by modulating information stored in the memory, the control unit being arranged in the space of the coil antenna; and a molded case including the coil antenna, wherein the two-dimensional center of the coil antenna is off from the two-dimensional center of the molded case; an antenna box that communicates with the plurality of wireless information storage devices to receive the signal from the plurality of the wireless information storage devices; and a computer connected to the antenna box to process the signal received via the antenna box, wherein each coil antenna is

Art Unit: 2684

located at a position in the wireless information storage device relatively different from each other when the plurality of wireless information storage devices are stacked in a direction perpendicular to their planar surfaces. The closest prior art, Kelley et al. (Kelly, US Patent No. 6,010,074) in view of Yap et al. (Yap, US Patent No. 6,111,506) teach of a reader/writer system comprising: a plurality of wireless information storage devices; a coil antenna that transmits and/or receives a signal via wireless communication; and an antenna box that communicates with the plurality of wireless information storage devices, but alone or in combination with other prior art, not specifically of the comprising: a plurality of wireless information storage devices having substantially planar surfaces, substantially the same outer shapes and sizes, and which are stacked, wherein each of the devices includes: a coil antenna that transmits and/or receives a signal via wireless communication and has a two-dimensional center; a memory arranged in the space of the coil antenna to store information; a control unit that generates information by demodulating a signal received via the coil antenna, and generates a signal to be transmitted via the coil antenna by modulating information stored in the memory, the control unit being arranged in the space of the coil antenna; and a molded case including the coil antenna, wherein the two-dimensional center of the coil antenna is off from the two-dimensional center of the molded case; an antenna box that communicates with the plurality of wireless information storage devices to receive the signal from the plurality of the wireless information storage devices; and a computer connected to the antenna box to process the signal received via the antenna box, wherein each coil antenna is located at a position in the wireless information storage device relatively different from each other when the plurality of wireless information storage devices are stacked in a direction perpendicular to their planar surfaces.

Claims 14 – 16 are allowable as being dependent on claim 13.

Regarding claim 17, the present invention is of a reader/writer system comprising: a plurality of items with substantially planar surfaces, wherein a wireless information storage device on or in each item is located off from a two-dimensional center of each item, each device comprising a loop-shaped antenna, a wireless transmitter/receiver, and a molded case containing the antenna and the wireless transmitter/receiver therein; an antenna box that communicates with each of the wireless information storage devices to receive a signal from the wireless information storage devices; and a computer connected with the antenna box to process the signal received via the antenna box, wherein each device is located at a position on or in an item relatively different from each other when the plurality of items are stacked in a direction perpendicular to their planar surfaces. The closest prior art, Kelley et al. (Kelly, US Patent No. 6,010,074) in view of Yap et al. (Yap, US Patent No. 6,111,506) teach of a reader/writer system comprising: a wireless information storage device, a wireless transmitter/receiver, and a molded case containing the antenna and the wireless transmitter/receiver therein; an antenna box that communicates with each of the wireless information storage devices, but alone or in combination with other prior art, not specifically of a reader/writer system comprising: a plurality of items with substantially planar surfaces, wherein a wireless information storage device on or in each item is located off from a two-dimensional center of each item, each device comprising a loop-shaped antenna, a wireless transmitter/receiver, and a molded case containing the antenna and the wireless transmitter/receiver therein; an antenna box that communicates with each of the wireless information storage devices to receive a signal from the wireless information storage devices; and a computer connected with the antenna box to process the signal received via the

Art Unit: 2684

antenna box, wherein each device is located at a position on or in an item relatively different from each other when the plurality of items are stacked in a direction perpendicular to their planar surfaces.

***Response to Arguments***

3. Applicant's arguments with respect to claim 11 have been considered but are moot in view of the new ground(s) of rejection.

4. Applicant's arguments, see paper 14, filed 25 September 2003, with respect to claims 8 and 9 have been fully considered and are persuasive. The rejection of claims 8 and 9 has been withdrawn.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 13 – 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 13 and 17 the phrase "substantially" renders the claim indefinite because it is a broad term. See MPEP § 2173.05(b).

Dependent claims 14 – 16 are rejected for at least those reasons recited for independent claim 13.

Regarding claim 17, it was not understood what a "loop shaped antenna" was in reference to. For purposes of examination, it was assumed that this was the loop shaped coil antenna, as stated in the specification (for example, page 8, line 4 – 10).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly et al. (Kelly, US Patent No 6,010,074) in view of Yap et al. (Yap, US Patent No. 6,111,506) and in further view of Harrison et al. (Harrison, US Patent No. 6,176,425).

Regarding claim 11, Kelly teaches of a method for putting a wireless information storage device on or into an item, the device comprising a coil antenna (as seen in Figure 1 and column 4, lines 13 – 25).

Kelly does not specifically teach of a molded case including the coil antenna, having a two-dimensional center including the coil antenna, or of comprising the step of putting the device at a position in the item so as to be non-concentric with respect to devices in other items when a plurality of item is stacked.

In a related art dealing with a contact-less card communication unit, Yap teaches of a molded case including the coil antenna, having a two-dimensional center including the coil antenna (as seen in Figures 1 – 5 and column 12, lines 59 – 63 and starting column 13 line 64 and ending column 14, line 34).

It would have been obvious to one skilled in the art at the time of invention to have included into Kelly's contact-less data collection system, Yap's antenna structure and position,

Art Unit: 2684

for the purposes of quickly and securely verifying information for security purposes in a reliable manner without added delay or inconvenience, as taught by Yap.

Kelly in view of Yap still do not teach of comprising the step of putting the device at a position in the item so as to be non-concentric with respect to devices in other items when a plurality of item is stacked.

In a related art dealing with electronic identification tags, Harrison teaches of comprising the step of putting the device at a position in the item so as to be non-concentric with respect to devices in other items when a plurality of item is stacked (Figure 1, column 6, lines 40 –61 and column 7, lines 1 –5; note that as the devices can be embedded, when viewed from any orientation through any face, the items would be stacked and not related in position, as seen in Figure 1 fro example).

It would have been obvious to one skilled in the art at the time of invention to have included into Kelly and Yap's contact-less communication device, Harrison's embedded multi-tag system, for the purposes of multiple tagging an object of three dimensions, as taught by Harrison.

***Citation of Pertinent Prior Art***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Inventor	Publication	Number	Disclosure
Sugimura	US Patent	6,367,143	Coil element and method for manufacturing thereof
Gnadinger et al	US Patent	6,268,796	Radio frequency identification transponder having integrated antenna
Harrison et al.	US Patent	6,249,226	Network printer document interface using electronic tags



Art Unit: 2684

Chia	US Patent	5,945,938	RF identification transponder
Kreft	US Patent	5,206,495	Chip card
Inoue	US Patent	4,960,983	Noncontact type IC card and system for noncontact transfer of information using the same
Kenichi et al.	Japanese Patent Application	09-197965	Manufacture of Electronic Tag

### *Conclusion*

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanmay S Lele whose telephone number is (703) 305-3462. The examiner can normally be reached on 9 - 6:30 PM Monday – Thursdays and on alternate Fridays.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay A. Maung can be reached on (703) 308-7745. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Application/Control Number: 09/517,186

Page 9

Art Unit: 2684

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

  
Tanmay S Lele  
Examiner  
Art Unit 2684

tsl  
March 9, 2004

  
NAY MAUNG  
SUPERVISORY PATENT EXAMINER